(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization

International Bureau







(10) International Publication Number WO 2004/087068 A2

(51) International Patent Classification7:

A61K

(21) International Application Number:

PCT/US2004/009570

(22) International Filing Date: 26 March 2004 (26.03.2004)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

60/458,217

27 March 2003 (27.03.2003) US

(71) Applicant (for all designated States except US): EMORY UNIVERSITY [US/US]; 1784 North Decatur Road, Suite 130, Atlanta, GA 30322 (US).

(72) Inventors; and

- (75) Inventors/Applicants (for US only): SHIM, Hyunsuk [KR/US]; 1365B Clifton Road, Atlanta, GA 30322 (US). LIANG, Zhongxing [CN/US]; 847 Briarcliff Road. NE Apt. B-2, Atlanta, GA 30306 (US). UMBREIT, Jay [US/US]; 1365B Clifton Road, Atlanta, GA 30322 (US). TAICHMAN, Russel [US/US]; 1420 Normandy Road, Ann Arbor, MI 48104 (US). GOODMANN, Mark [US/US]; 7870 Fawndale Way, Atlanta, GA 30350 (US).
- (74) Agent: VORNDRAN, Charles; Thomas, Kayden, Horstemeyer & Risley, LLP, 100 Galleria Parkway, NW, Suite 1750, Atlanta, GA 30339 (US).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM. TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declaration under Rule 4.17:

of inventorship (Rule 4.17(iv)) for US only

Published:

without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: CXCR4 ANTAGONISTS AND METHODS OF THEIR USE

(57) Abstract: Compositions and methods for the treatment or prevention of a chemokine related or chemokine-receptor-related pathology are provided. In one aspect, the pathology is cancer. It has been discovered that CXCR4 antagonists, in particular CXCR4 peptide antagonists such as TN14003, inhibit or reduce tumor metastasis in a host.